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### A LIST OF THE ANTS OF FLORIDA WITH DESCRIPTIONS OF NEW FORMS

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Dr. M. R. Smith has very recently published such a conscientious list of the ants of Florida (Florida Entomologist 14, 1930, pp. 1-16) that there would seem to be little immediate need to cover the same ground again. A visit, however, to the southern counties of the state during the winter of 1930 to 1931 and the finding of considerable additional material both in the Museum of Comparative Zoology and in my own collection have induced me to undertake the task. Dr. Smith's list comprises 75 forms, if we include *Eciton schmitti* Emery, which has not yet been taken in Florida, and omit *Crematogaster punctulata* Emery, which seems to be a misidentification. In the present list 16 additional forms, several of them new to science, or to the fauna of the United States are included, together with a number of new locality records for many of the species previously enumerated.

Of course, the list herewith presented is still incomplete. It will probably be considerably increased when some of our naturalists, who pass their winters in Florida, go in for intensive observation and collection of the ants. The fact that the Formicidæ, unlike most groups of insects, are active even during December and January, at least in southern Florida, should make them attractive objects of study, especially as few states in the Union possess so many interesting species. These comprise members of several singular tropical genera—Euponera,

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Leptogenys, Odontomachus, Pseudomyrma, Cardiocondyla, Xenomyrmex, Antillamyrmex, Wasmannia, Cryptocerus, Cyphomyrmex and Iridomyrmex—which are either absent or rather rare in our other Southern States, a unique harvesting ant, *Pogonomyrmex badius*, with polymorphic workers, and a Crematogaster, *C. atkinsoni*, which is also unique among its North American congeners in building large carton nests on plants. The Florida ant-fauna is peculiar, moreover, because fully a third of its species, subspecies and varieties regularly nest in plant-cavities—twigs, weed-stems, branches, sedge-culms, interstices between the over-lapping leaves of certain “air-plants” (Tillandsias), probably an adaptation to edaphic conditions since the soil, at least in the southern part of the peninsula, is either absent or very shallow and poorly drained. Both entomologists and botanists will therefore find the search for the concealed nests in the vegetation of the hammocks, everglades and cypress swamps a fascinating occupation and will be astonished at the variety and abundance of ants in a region which the casual observer may be inclined to regard as possessing a very meager and uninteresting fauna.

For generous aid in visiting many localities in southern Florida and securing most of the new data recorded in the following pages I am indebted to my friends Dr. David Fairchild, his son, Mr. Graham Fairchild, and Mr. Fred Burgess, grandson of an illustrious American entomologist and yacht-designer.

*Family Formicidae*

*Subfamily Dorylinae*

(1) *Eciton (Acamatus) opacithorax* Emery—St. Augustine, (C. T. Brues).

(2) *Eciton (Acamatus) schmitti* Emery.

According to Dr. M. R. Smith, “this species undoubtedly occurs in the state as it is common in the adjoining states.” For some reason the genus *Eciton* is more poorly represented in Florida than in the other Gulf states or even in the Carolinas.

*Subfamily Ponerinae*

(3) *Stigmatomma pallipes* Haldeman — Dunedin (W. S. Blatchley).

A rather rare ant, distributed throughout the United States and represented by several varieties or subspecies, some of which are still undescribed.

- (4) *Euponera* (*Trachymesopus*) *stigma* Fabr.—Lake Worth (J. Schmitt).

A common neotropical form, but known only from this single locality in the United States.

- (5) *Ponera coarctata* Latreille subsp. *pennsylvanica* Buckley—Monticello; Gainesville; cited from "Florida" by Emery.

Common and widely distributed in the states east of the Mississippi.

- (6) *Ponera opaciceps* Mayr—Royal Palm Park and Dunedin (W. S. Blatchley).

- (7) *Ponera trigona* Mayr var. *opacior* Forel—Jacksonville (Wheeler).

Like the preceding a widely distributed neotropical form.

- (8) *Leptogenys* (*Lobopelta*) *elongata* Buckley subsp. *manni* Wheeler—Bellair.

Apparently a local race of the typical *elongata*, which ranges from Georgia to Texas.

- (9) *Odontomachus hamatoda* L. subsp. *insularis* Guérin—Lake Worth (J. Schmitt); Enterprise (W. Beutenmueller); Biscayne Bay (Mrs. A. T. Slosson); Coconut Grove, Lower Matacombie Key and Paradise Key (Wheeler); Tallahassee; Gainesville; Monticello; Lakeland. Deep Lake; Miami (A. E. Wight); St. Petersburg (H. Roster); Royal Palm Park (W. S. Blatchley).

Very generally distributed throughout the state and living in small colonies under stones, logs, boards, etc. It seems to be an immigrant from the West Indies, where it is common.

#### *Subfamily Pseudomyrminae*

- (10) *Pseudomyrma Brunnea* F. Smith—Haw Creek, Volusia Co. (T. Pergande); Tallahassee; Royal Palm Park and Dunedin (W. S. Blatchley); Lakeland; Miami (H. Hebard); Paradise Key, Long Pine Key, Lower Matacombie Key and Pine Crest (Wheeler).

Nesting in dead twigs and the culms of grasses and sedges. Blatchley describes it as nesting "in the roots of bunches of grass along the ditches," but this is certainly an error.

- (11) *Pseudomyrma elongata* Mayr—Key West (T. Pergande); Royal Palm Park and Dunedin (W. S. Blatchley); Miami (M. Hebard; W. E. Wight); Coconut Grove, Paradise Key, Long Pine Key and Lower Matacombie Key (Wheeler); Biscayne Bay (Mrs. A. T. Slosson).

Nesting in twigs of trees, including those of the sea-grape (*Cocoloba uvifera*), and in the culms of grasses and sedges. Common also in Cuba where it is represented by several varieties.

- (12) *Pseudomyrma flavidula* F. Smith—Key West (T. Pergande); Key Largo, Biscayne Bay; Card's Point, Paradise Key, Long Pine Key, Lower Matacombie Key, Pine Crest (Wheeler); Miami (P. Laurent); Royal Palm Park and Dunedin (W. S. Blatchley).

Common throughout the southern portion of the state in weed stems and the culms of grasses and sedges, less frequently in the twigs of trees and shrubs.

- (13) *Pseudomyrma pallida* F. Smith—"Florida" (Norton; S. Henshaw); Clearwater; Kissimee; Dunedin (W. S. Blatchley).

Less abundant than the preceding species but nesting in the same manner.

#### *Subfamily Myrmicina*

- (14) *Pogonomyrmex badius* Latreille—St. Petersburg (H. Raster); Rock Springs (H. T. Woodruff); Fort Worth and Sanford (P. Schmitt); Grant; Inverness (C. M. Weed); Jacksonville (Wheeler; Van Duzee); Lakeland; St. Augustine (C. T. Brues); Carrabelle; Gulfport (Reynolds); Kissimee; Pensacola; De Funiak Springs; Gainesville; Marco.

I have not seen specimens of this large agricultural ant from the southern portion of the state, where, perhaps, the soil conditions are most unfavorable to its nesting habits.

- (15) *Aphaenogaster (Attomyrma) fulva* Roger subsp. *aquia* Buckley.

Recorded by Dr. R. M. Smith from Royal Palm Park. I have seen a specimen of this northern ant from Dunedin (W. S. Blatchley).

(16) *Aphaenogaster (Attomyrma) lamellidens* Mayr.

Recorded by Mayr and Emery from "Florida," without precise locality. The species belongs to the Carolinian fauna and probably enters the northern counties of the state.

(17) *Aphaenogaster (Attomyrma) mariæ* Forel.

Originally described from specimens taken in Florida by Mrs. Mary Treat. There are specimens in my collection labeled "Florida" and taken by T. Pergande. I have inferred from the small size of the female of this ant that it is, like *A. tennesseensis* Mayr, a temporary social parasite of some species of *Aphaenogaster*, probably *fulva*.

(18) *Aphaenogaster (Attomyrma) texana* Emery var. *furvescens* Wheeler. Royal Palm Park (W. S. Blatchley).  
Nesting under stones and logs.

(19) *Aphaenogaster (Attomyrma) texana* var. *silvestrii* Menozzi.  
Gainesville (F. Silvestri).

This form, originally described by Menozzi as an independent species and erroneously referred to the subgenus *Deromyrma*, is scarcely distinct from the preceding variety. I possess a number of workers and a deälated female from the type locality, which agree very closely with Menozzi's description.

(20) *Aphaenogaster (Attomyrma) texana* var. *miamiana* var. nov.

WORKER. Length 5-5.7 mm.

More robust and averaging larger than the other forms of *texana*: head broader and less narrowed behind, though without posterior corners, the postocular outline from above semicircular; antennal scapes stouter and slightly shorter; epinotal spines longer, slender and acute. Sculpture decidedly coarser throughout, mandibles, clypeus and head more strongly longitudinally rugose; pronotum and base of epinotum transversely, sides of thorax longitudinally rugulose. Pubescence on legs somewhat more distinct and more abundant. Rich ferruginous red, antennæ paler, posterior portion of gaster dark brown; coxæ and legs yellow-brown.

FEMALE. (deälated). Length about 7 mm.

Smaller than the female of the typical *texana* which measures 8-8.5 mm. and exhibiting the same differences in sculpture, pilosity and color as the worker.

MALE. Length 4.5 mm.

Very similar to the male of the typical *texana* but the head slightly broader and the epinotal protuberances of a different shape, being less swollen and not separated by a longitudinal dorsal impression. Mesonotum less shining and more sharply rugulose posteriorly.

Described from eight workers, three females and a male taken by A. E. Wight at Miami, Florida (type-locality), two females from the same locality taken by M. Hebard, several workers collected by myself on Paradise Key and at Planter on Key Largo and three workers from Biscayne Bay (Mrs. A. T. Slosson).

(21) *Aphaenogaster* (*Attomyrma*) *texana* subsp. *nana* subsp. nov.

WORKER. Length 2.5 mm.

Much smaller than any of the other forms of *texana* and more feebly sculptured, the head thorax and ventral portions of the pedicel finely and densely punctate, with only a few longitudinal rugules on the cheeks and sides of the front where they continue the frontal carinæ; occiput, anterior portion of the pronotum and summits of the petiolar and postpetiolar nodes smooth and shining. Ferruginous brown; coxæ, legs and mandibles, except their teeth, yellow.

Three workers Gainesville, Florida.

(22) *Aphaenogaster* (*Attomyrma*) *treatae* Forel var. *ashmeadi* Emery.

This form was cited by Mayr and Emery from Florida. I possess a few workers from Tallahassee (L. S. Barber).

(23) *Pheidole anastasii* Emery—Sanford and Lake Worth (J. Schmitt); Dunedin (W. S. Blatchley).

Originally described from Costa Rica. It occurs also in Mexico.

(24) *Pheidole commutata* Mayr—Miami (A. E. Wight); Everglade; Pigeon Key (Wheeler); Gainesville; St. Augustine (C. T. Brues); De Funiak Springs; Biscayne Bay (Mrs. A. T. Slosson); Long Pine Key (Wheeler).

Originally described from specimens taken by Ashmead and Pergande in Florida.

(25) *Pheidole dentata* Mayr—Miami (Wheeler); Royal Palm Park (W. S. Blatchley).

(26) *Pheidole floridana* Emery—Coconut Grove (type locality) and St. George (T. Pergande); Royal Palm Park and Dunedin (W. S. Blatchley); Coconut Grove (G. Fairchild).

- (27) *Pheidole metallescens* Emery—St. George, type locality (T. Pergande); Jacksonville (Wheeler); Royal Palm Park (W. S. Blatchley).
- (28) *Pheidole morrisi* Forel—Royal Palm Park (W. S. Blatchley); St. Petersburg (H. Raster); Inverness (C. M. Weed).
- (29) *Cardiocondyla emeryi* Forel—Miami (Amer. Mus. Nat. Hist.).
- (30) *Cardiocondyla nuda* Mayr var. *minutior* Forel—Miami (W. E. Wight), numerous specimens.

This tiny ant has not been recorded heretofore from the United States.

- (31) *Cardiocondyla wroughtoni* Forel var. *bimaculata* Wheeler.

Two colonies containing a number of females, taken in hollow culms of sedges at Royal Palm Park (Wheeler). This variety was originally described from Formosa and closely resembles the var. *hawaiiensis* Forel, except that the two spots on the sides of the first gastric segment of the worker are large and dark brown. Sometimes there is a third smaller and paler brown spot in the middorsal like. The typical *wroughtoni* was originally described from India. This ant, like the preceding, is new to the fauna of the United States and has probably been very recently introduced from the Orient in living plants.

- (32) *Xenomyrmex stolli* Forel subsp. *floridanus* Emery—Lake Worth (T. Pergande), nesting in a twig of a gumbo-limbo tree (*Sideroxylon masticodendron*); Dunedin, workers and females (W. S. Blatchley).
- (33) *Xenomyrmex stolli* subsp. *rufescens* Wheeler.

Recently described from a single dealated female taken on Long Pine Key (Wheeler).

- (34) *Crematogaster (Acrocoelia) ashmeadi* Mayr—Key West (T. Pergande); Miami (Wheeler, A. E. Wight, P. Laurent); Card's Point, Key Largo, Long Pine Key, Lower Matacombie Key, Pine Crest and Bottle Point Key, on red mangrove (Wheeler); Biscayne Bay (Mrs. A. T. Slosson), on mangrove trunks; St. Augustine (C. T. Brues), in flower-stalks of *Yucca*; Dunedin (W. S. Blatchley).

The worker of this species, as Mayr observed, is very variable in color. My specimens from northern Florida and the other Gulf States as far west as central Texas are red or even yellowish, with the tip or posterior half of the gaster more or less infuscated. Some specimens are entirely yellowish red. The male of this form also has a yellow gaster. In southern Florida the workers are decidedly darker, the head, thorax, pedicel, base of gaster and the appendages being usually dark reddish brown or castaneous with most of the gaster black. This form is obviously transitional to the following variety:

(35) *Crematogaster (Acrocoelia) ashmeadi* var. *matura* var. nov.

WORKER. Length 2.8–3.5 mm.

Differing from the typical form of the species in having distinctly longer and more tapering epinotal spines and a broader postpetiole, with more strongly separated dorsal tubercles. The thorax is somewhat more shining and more distinctly punctate-striate, the color is much darker, being black, with the antennæ and petiole very dark brown, the mandibles, tarsi, trochanters, bases and tips of femora paler and more reddish.

This variety is based on specimens which I collected near Miami. Others which I took on Cocoplum Beach near Coconut Grove and on Paradise Key have the thorax castaneous brown. In those from the former locality the peculiarity of the petiole is very pronounced.

(36) *Crematogaster (Acrocoelia) atkinsoni* Wheeler—Ft. Myers (type locality); Royal Palm Park (W. S. Blatchley); Long Pine Key and Big Cypress Swamp, near Pine Crest (Wheeler); Tallahassee.

All three castes of this species are very similar to those of the typical form of our northern *C. lineolata*, but as was pointed out in my original description, its habits are very different since it makes nests of very coarse gray or blackish carton on sedges or bushes half a meter or more above the ground so that the colonies are well out of reach of high water in the everglades and cypress swamps. Nests were found both on Long Pine Key and near Pine Crest, but were most numerous in the latter locality. The largest seen was taken by Messrs. Graham Fairchild and Fred Burgess in the former region. It was somewhat triangular in shape and flattened, measuring  $30 \times 15 \times 9$  cm. The numerous nests which I examined along the road through the Big Cypress

Swamp were smaller and more regularly spherical or ellipsoidal, varying from the size of an egg or orange to nearly the size of one's head. I found that the recently fecundated queen of *atkinsoni* first establishes herself in the cavity of a sedge culm and there rears her first broods of workers till they become too numerous to be accommodated in the cavity. They then enclose the sedge for some distance in an irregular carton sheath and continue for some time to inhabit both the cavity of the culm and the spaces between its outer surface and the carton. Finally, with still greater increase in the population, additional layers of carton, containing the galleries and chambers, are applied to the outside of the nest till it attains its full dimensions. The colony is then very populous, produces many males and winged females and defends itself vigorously when its paper domicile is roughly handled. Dr. M. R. Smith quotes some observations of Blatchley on the nests of this ant at Royal Palm Park.

- (37) *Crematogaster (Acrocoelia) atkinsoni* var. *helveola* Wheeler—Lake Worth (J. Schmitt).
- (38) *Crematogaster (Acrocoelia) lineolata* Say—Pensacola.
- (39) *Crematogaster (Acrocoelia) lineolata* Say subsp. *laeviuscula* Mayr—Recorded by Mayr and Emery from "Florida." Royal Palm Park and Dunedin (W. S. Blatchley).
- (40) *Crematogaster (Acrocoelia) lineolata* subsp. *pilosa* Pergande—Dunedin (W. S. Blatchley).
- (41) *Crematogaster (Orthocrema) minutissima* Mayr—Royal Palm Park and Dunedin (W. S. Blatchley); Lakeland; Tallahassee.
- (42) *Monomorium floricola* Jerdon—Biscayne Bay (Mrs. A. T. Slosson); Key Largo, Miami Beach, Lower Matacombie Key, Paradise Key, Long Pine Key, Pine Crest, Hollywood (Wheeler); Royal Palm Park (W. S. Blatchley); Miami (A. E. Wight).

Blatchley states that this ant "nests beneath stones in damp localities" but as I have always taken it in plant-cavities (hollow twigs or Tillandsias) I suspect that his specimens belonged to *M. minimum* Buckley.

- (43) *Monomorium minimum* Buckley—Miami (A. E. Wight); Titusville, Royal Palm Park (W. S. Blatchley);

Biscayne Bay (Mrs. A. T. Slosson); Miami, Coconut Grove, Paradise Key, Long Pine Key, Lower Matacombie Key, Hollywood, etc. (Wheeler).

A common ant in the Carolinian and Austroriparian Zones, nesting under stones and in small crater nests in the soil.

- (44) *Monomorium pharaonis* L.—Gainesville (A. H. Byer); Deep Lake; Miami (H. T. Woodruff); Key Largo, Paradise Key, Homestead (Wheeler); Royal Palm Park (W. S. Blatchley).

The commonest of house-ants in the northern States but nesting also out-of-doors in Southern Florida.

- (45) *Solenopsis geminata* Fabr.—Miami, Jacksonville (Wheeler); St. Augustine (C. T. Brues); Fort Myers (Amer. Mus. Nat. Hist.); Dunedin (W. S. Blatchley).

This typical form of a highly variable species seems to be less abundant in Florida than the following red subspecies.

- (46) *Solenopsis geminata* Fabr. subsp. *rufa* Jerdon—Miami (Wheeler, A. E. Wight); Gainesville; Ft. Myers (Amer. Mus. Nat. Hist.); Lakeport (A. Deyaert); Labelle; Punta Gorda; Royal Palm Park and Dunedin (W. S. Blatchley); St. Petersburg (H. Raster); Miami Beach (S. O. Hill); Biscayne Bay (Mrs. A. T. Slosson); Kissimee; Coconut Grove, Long Pine Key (Wheeler).

Creighton, in his recent revision of the Neotropical *Solenopsis*, regards the common Florida form of *geminata* as identical with the Indian and East Indian form originally described by Perdon.

- (47) *Solenopsis (Diplorhoptrum) picta* Emery—Paradise Key, Long Pine Key, Lower Matacombie Key (Wheeler), in hollow twigs of trees and shrubs and in the culms of sedges.

According to Emery this ant, which Emery described from Florida specimens taken by Pergande in a Cynipid gall on *Quercus phellas*, was erroneously identified as *S. tenuis* by Mayr in 1886 (not *tenuis* Mayr, 1877).

- (48) *Solenopsis (Diplorhoptrum) laeviceps* Mayr (?)—Dunedin (W. S. Blatchley).

This is probably *S. picta* Emery.

- (49) *Myrmecina graminicola* Latr. subsp. *americana* Emery var. *brevispinosa* Emery—Royal Palm Park (W. S. Blatchley).
- (50) *Antillæmyrmex floridanus* Wheeler—Royal Palm Park, Paradise Key (Wheeler), in dead twigs of a bush about six feet above the ground.

This interesting member of a genus hitherto supposed to be confined to the Antilles, was described in my recent paper "Ants of the Genera *Macromischa*, *Cræsomymex* and *Antillæmyrmex*," Bull. Mus. Comp. Zool., 1931, 72, p. 27.

- (51) *Leptothorax (Dichothorax) floridanus* Emery—"Florida" (T. Pergande), type locality.
- (52) *Tetramorium guineense* Fabr.—Dry Tortugas (T. Pergande); Biscayne Bay (Mrs. A. T. Slosson); Royal Palm Park and Dunedin (W. S. Blatchley).

A common tropicopolitan species introduced into Florida.

- (53) *Tetramorium simillimum* F. Smith—There are specimens bearing the label "Florida" in my collection. This is also an introduced tropicopolitan species.
- (54) *Wasmannia auropunctata* Roger—Miami (R. H. Hicks); Coconut Grove (D. Fairchild, Wheeler); Ft. Lauderdale (L. O. Hill).

This ant, apparently of recent introduction from the West Indies, where it is called the "hormiguilla" (Porto Rico) or "satana" (Cuba), is now very abundant under stones in the vicinity of Miami. Though minute and rather sluggish it can nevertheless sting somewhat painfully and may become a nuisance in gardens and plantations.

- (55) *Cryptocerus (Cyathocephalus) varians* F. Smith—Key West (T. Pergande); Card's Point (Wheeler), in Tillandsias; Coconut Grove (Miss Nancy Fairchild, Wheeler), in hollow twigs of *Coccoloba uvifera*).
- (56) *Cyphomyrmex rimosus* Spinola subsp. *minutus* Mayr—Key Largo, Coconut Grove. Long Pine Key (Wheeler); Miami (A. E. Wight); Royal Palm Park and Long Pine Key (W. S. Blatchley).

Forming small fungus-gardens under stones in shady places. The peculiar fungus (*Tyridiomyces formicarum* Wheeler) is

non-mycelial and is grown on particles of insect excrement collected by the ants.

- (57) *Trachymyrmex septentrionalis* McCook var. *seminola* Wheeler—Coconut Grove (Wheeler); Miami (A. E. Wight).

Making crater nests in the soil of open woods and lawns. The fungus, a white mycelium, is grown on suspended masses of vegetable detritus in chambers some inches beneath the surface.

*Subfamily Dolichoderinae*

- (58) *Dolichoderus (Hypoclinea) plagiatus* Mayr var. *beutenmuelleri* Wheeler—Pablo Beach (P. Laurent).  
(59) *Dolichoderus (Hypoclinea) plagiatus* subsp. *pustulatus* Mayr—Long Pine Key (W. S. Blatchley, Wheeler).

Blatchley found his specimens "nesting beneath loose bark of pine on Long Pine Key, and beneath boards on the ground near the old tomato packing shed. Also swept from weeds in old fields." In the same locality I found this ant nesting in the stems of sedges. Males and winged females were present in all the colonies during late December and early January.

- (60) *Iridomyrmex humilis* Mayr—Gainesville, Sept. to Oct., 1914.

This, the "Argentine ant," is represented in my collection by a single specimen from the locality above mentioned.

- (61) *Iridomyrmex pruinosus* Roger—Royal Palm Park and Long Pine Key (W. S. Blatchley); St. Petersburg (H. Raster); Key Largo, Lower Matacombe Key, Paradise Key (Wheeler); Titusville (Amer. Mus. Nat. Hist.).  
(62) *Dorymyrmex pyramicus* Roger—Miami (A. E. Wight); Upper and Lower Matacombe Keys (Wheeler). Recorded by Mayr and Emery from Florida.  
(63) *Dorymyrmex pyramicus* var. *flavus* Pergande—Tallahassee; Monticello; Lakeport (A. Deyaert); Pensacola; Gainesville; Miami (A. E. Wight); Miami Beach, Hollywood; Coconut Grove (Wheeler); Dunedin (W. S. Blatchley).

Nesting in crater nests in sandy soil or beach sand.

- (64) *Tapinoma sessile* Say—Royal Palm Park (W. S. Blatchley, Wheeler); Titusville (Amer. Mus. Nat. Hist.).

In the Northern States this common ant nests in the ground under stones, bits of wood, etc., but the single colony which I found in Royal Palm Park was inhabiting the basal portion of a large *Cladium effusum* culm. The specimens are rather pale, with yellowish mandibles and body sutures, the pubescence is somewhat more developed and the integument therefore less shining than in many forms of *sessile*, but till the species has been revised I hesitate to introduce a new varietal name.

- (65) *Tapinoma (Micromyrma) littorale* Wheeler—Miami, Coconut Grove, Paradise Key, Long Pine Key, Card's Point (Wheeler); Miami (A. E. Wight); Dunedin (W. S. Blatchley).

Nesting in dead twigs or in Tillandsias.

- (66) *Tapinoma (Micromyrma) melanocephalum* Fabr.—Royal Palm Park (W. S. Blatchley); St. Petersburg (H. Raster); Miami (A. E. Wight), in Tillandsias; Biscayne Bay (Mrs. A. T. Slosson).

A common tropicopolitan ant, the "hormiga bottegaria" of the West Indies.

#### *Subfamily Formicinae*

- (67) *Brachymyrmex heeri* Forel var. *depilis* Emery.

A common northern variety cited by Emery as occurring in Florida.

- (68) *Camponotus castaneus* Latr.

Forel and Mayr record this species from "Florida" (Mrs. Mary Treat). I have several workers from Monticello, Jefferson County, in the extreme northern portion of the state.

- (69) *Camponotus castaneus* subsp. *americanus* Mayr.

Workers from Quincy, Gadsden County (W. A. Hooker), also in the extreme northern portion of Florida. This is probably the southernmost limit of the range of this subspecies, which occurs as far north as Massachusetts.

- (70) *Camponotus herculeanus* L. subsp. *pennsylvanicus* Degeer.

A few workers of this common northern carpenter ant from Tallahassee (L. S. Barber).

- (71) *Camponotus (Tanaemyrmex) tortuganus* Emery—Dry Tortugas (T. Pergande), type-locality; Miami, Coconut

Grove, Paradise Key, Long Pine Key, Planter on Key Largo (Wheeler); Lake Worth (J. Schmitt); Marco; Everglade; Royal Palm Park, Paradise Key (W. S. Blatchley); Gulfport (Reynolds).

These localities are all in the southern third of the peninsula. *C. tortuganus* forms rather small colonies under stones. In the "Genera Insectorum" Emery doubtfully cites it as a subspecies of *C. conspicuus* Smith, but it seems to me preferable to regard it as an independent species.

(72) *Camponotus* (*Tanæmyrmex*) *incensus* sp. nov.

WORKER MAJOR. Length about 7 mm.

Resembling *tortuganus* but much smaller; (the latter measures 10-11 mm.) head of the same shape but proportionally shorter, with more acute anterolateral clypeal angles, more nearly straight, crenated anterior clypeal border, less impressed frontal area, posteriorly more approximated frontal carinae and somewhat shorter and more compressed antennal scapes. Thorax distinctly shorter with more convex and more even dorsal curvature, broader through the pronotum, which is less flattened above; base of epinotum forming a more distinct angle with the declivity. Grooves of the hind tibiae less distinct. Surface of body less sharply shagreened, so that the surface, especially of the occiput, posterior corners of the head and the thorax distinctly smoother and more shining. Cheeks and sides of head with sparse but shallow, elongate foveolæ or coarse punctures, occiput with a radiating series of linear punctures and dorsal surface of pronotum with several similar impressions. Pilosity as in *tortuganus*, but paler yellow and pubescent on legs shorter. Color similar but the thorax is paler and more yellowish and the occiput and posterior corners of the head are paler, reddish brown. Gaster brown, paler than in *tortuganus*, the segments with a narrow dark brown band near the pale posterior border.

WORKER MINOR. Length 6.3 mm.

Very similar to the minor of *tortuganus* but much smaller and paler, the epinotum distinctly more angulate in profile, the base straight and nearly concave, the declivity very short. Thorax paler than in *tortuganus*, front, clypeus and cheeks anteriorly yellow, mandibles brownish yellow; gaster colored like that of the major.

Described from a single major and two minor workers which I collected many years ago (May 6, 1904) on Pigeon Key, near Miami, Florida

(73) *Camponotus* (*Tanaemyrmex*) *Sosius* Roger—Sanford (J. Schmitt); Green Cove Spring (Mrs. Mary Treat); Dunedin (W. S. Blatchley); De Funiak Springs; Estera; Tampa; Clearwater; Kissimee.

This handsome species has a singular distribution since it is known to occur only in Brazil, Florida, Georgia and Alabama. In none of these localities does it seem to be abundant.

(74) *Camponotus (Tanæmyrmex) socius* var. *osceola* var. nov.

WORKER MEDIA and MINOR. Differing from the typical *socius* in color. The ferruginous red of the head, thorax and appendages is much paler, with different maculation of the gaster. The dorsal surface of the first to third gastric segments is largely pale yellow, separated from the pale posterior border by a narrow dark brown band. In the typical *socius* there is no yellow spot on the third segment and the one on the second is nearly interrupted in the middle.

Four specimens from Jacksonville, Florida (Van Duzee Coll.).

(75) *Camponotus (Myrmothrix) abdominalis* Fabr. subsp. *floridanus* Buckley—Lake Worth; Miami (A. E. Wight); Coosahatchie River (Heil); Royal Palm Park (W. S. Blatchley, Wheeler); Key Largo, Coconut Grove, Lower Matacombie Key, Hollywood, Long Pine Key (Wheeler); St. Petersburg (H. Raster); Ft. Myers (S. O. Hill); Cocoa (H. T. Woodruff); Gainesville; Monticello; Labelle. Clearwater; Kissimee.

This common and pugnacious ant has a great variety of nesting sites—in dead branches on living trees, in decaying logs, under large stones, boards, etc. It is known to plunder bee-hives.

(76) *Camponotus (Myrmentoma) caryæ* Fitch—Tallahassee (L. S. Barber); Atlantic Beach (Mrs. A. T. Slosson); Live Oak (A. P. Morse).

Nesting in dead branches.

(77) *Camponotus (Myrmentoma) caryæ* subsp. *rasilis* Wheeler—Miami (Wheeler); Sanford (J. Schmitt); Royal Palm Park (W. S. Blatchley).

(78) *Camponotus (Myrmentoma) caryæ* subsp. *rasilis* var. *pavidus* Wheeler—Jacksonville and Atlantic Beach (Mrs. A. T. Slosson); St. Augustine (C. T. Brues).

(79) *Camponotus (Myrmobrachys) planatus* Roger—Miami (Wheeler, A. E. Wight); Fort Myers (S. O. Hull); Card's Point, Planter on Key Largo, Cocoplum Beach near Coconut Grove, Lower Matacombie Key, Miami Beach (Wheeler); Upper Matacombie Key (W. S. Brooks); Key West (T. Pergande).

This tropical ant, which is common in Cuba and Mexico, nests either in the hollow branches of trees, especially *Coccoloba uvifera*, in the stems of weeds or in Tillandsias. It is confined to the southern third of the peninsula.

- (80) *Camponotus (Colobopsis) impressus* Roger—Lake Worth J. Schmitt); Bellair (Mrs. A. T. Slosson); Dunedin and Royal Palm Park (W. S. Blatchley); Paradise Key, Long Pine Key and Pine Crest (Wheeler).

I found this ant very common in the culms of sedges. It nests precisely like *C. culmicola* Wheeler of the Bahamas. Males and winged females were present in most of the colonies during late December and early January.

- (81) *Camponotus (Colobopsis) pylartes* Wheeler.

Dr. M. R. Smith records this species as having been taken by W. S. Blatchley in Royal Palm Park.

- (82) *Paratrechina longicornis* Latr.—Miami (A. E. Wight); Coconut Grove (Wheeler); Royal Palm Park (W. S. Blatchley); St. Petersburg (H. Raster).

A common tropicopolitan and introduced species, the "crazy ant" ("hormiga loca") of the West Indies.

- (83) *Paratrechina (Nylanderia) parvula* Mayr—Dunedin (W. S. Blatchley). Recorded by Mayr and Emery from "Florida."

- (84) *Paratrechina (Nylanderia) vividula* Nylander—Gainesville; Miami (A. E. Wight).

- (85) *Paratrechina (Nylanderia) bourbonica* Forel var.—Miami Beach (S. O. Hill); Miami (A. E. Wight) Apr., May, 1924; Coconut Grove (Wheeler).

Of recent introduction from the Orient.

- (86) *Prenolepis imparis* Say var. *testamea* Emery—St. Augustine (C. T. Brues); Tallahassee.

Known only from the northern portion of the state; common as far north as New Jersey.

- (87) *Lasius niger* L. subsp. *alienus* Förster var. *americanus* Emery—Monticello. Mayr had already recorded this very common northern ant from "Florida."

(88) *Lasius brevicornis* Emery.

Recorded by Emery from "Florida," probably from one of the northern counties.

(89) *Lasius* (*Acanthomyops*) *claviger* Roger.

Recorded by Emery from "Florida." Like the preceding it probably occurs only in the northern counties.

(90) *Formica* (*Neoformica*) *pallide-fulva* Latr.—St. Petersburg; Gainesville.

(91) *Formica* (*Neoformica*) *pallide-fulva* Latr. subsp. *schaufussi* Mary var. *dolosa* Wheeler—Monticello; Gainesville; Pensacola (J. C. Bradley); St. Petersburg (H. Raster).